Attachment # 1

Customer number 37129
Konstandinos Zamfes (inventor)
Application number 10/711,333

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Re: Cancelling the additional claims for which fees are due.

Patent application number 10/711,333.
"Drilling Cutting Analyzer System and methods of applications."

What is claimed is:

Claim 1 remains. (1.)
Claim 1 is an apparatus for measuring the natural gamma radiation in discrete media of drilling cuttings consists of:
Claim 1.1 is cancelled.
Claim 1.1 the device of natural gamma rays receiver **13** (with sodium iodine crystal) on a side of main auger **11**.
Claim 1.2 remains. (2.)
Claim 1.2 is the means of obtaining signal that is discriminating the natural gamma radiation of different formations obtained at the surface from unconsolidated material and drilling cuttings.
Claim 1.3 is cancelled.
Claim 1.3 The led shield **19** protecting the measurements from surrounding radiation of earth and other materials.
Claim 1.4 is cancelled.
Claim 1.4 is apparatus for measuring the natural beta radiation in discrete media of drilling cuttings consists of:
Claim 1.5 is cancelled.
Claim 1.5 the device of natural beta rays receiver **12** on a side of main auger **11**.
Claim 1.6 is cancelled.
Claim 1.6 the means of obtaining signal that is discriminating the natural beta radiation of different formations obtained at the surface from unconsolidated material and drilling cuttings.
Claim 1.7 is cancelled.
Claim 1.7 the led shield **19** protecting the measurements from surrounding radiation of earth and other materials.
Claim 2 remains. (3.)
Claim 2 is the apparatus for measuring the absorption properties of gamma radiation in discrete media of drilling cuttings consist of:
Claim 2.1 remains. (4.)
Claim 2.1 two sensors. First is the gamma ray **15** and beta ray **16** receivers attached together on one side.
Claim 2.2 is cancelled.
Claim 2.2 the weak directional beam **26** of gamma rays source **17** placed on opposite side of the analyzer tube **11**.
Claim 2.3 is cancelled.

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Claim 2.3 the dual signal synchronously reflecting the **absorption radiation 21 and induced radiation 16** properties of media passing inside the tube.
Claim 2.4 is cancelled.
Claim 2.4 the emission produced by **Induced gamma and beta** radiation in discrete media of drilling cuttings.
Claim 3 remains. (5.)
Claim 3 is the apparatus for measuring the **Induction Resistivity** properties of formation in discrete media of drilling cuttings.
Claim 3.1 is cancelled.
Claim 3.1 is the plastic tube.
Claim 3.2 is cancelled.
Claim 3.2 is nonconductive auger.
Claim 3.3 is cancelled.
Claim 3.3 is the process of subjecting the cutting or other unconsolidated media to magnetic field to obtain the current drop signal reflecting the media properties.
Claim 4 remains. (6.)
Claim 4 is the apparatus for measuring the Sonic velocities and penetration properties of formation in discrete media of drilling cuttings.
Claim 4.1 is cancelled.
Claim 4.1 is the apparatus creating the source **42** to produce the sound energy for measurements.
Claim 4.2 is cancelled.
Claim 4.2 is the apparatus of Sonic delta Time sensors **43** and **44**. **Claim 4.2** is the apparatus of Sonic delta Time sensors **43** and **44**.
Claim 4.3 is cancelled.
Claim 4.3 consists of process of obtaining the differential signal from two sensors **43** and **44**.
Claim 5 is cancelled.
Claim 5 is the process of characterization of substrata formations through measuring the drilling cuttings flow. The parameters related to Density, Grain size, Porosity and other can be related.
Claim 6 remains. (7.)
Claim 6 is the parameter to correlate the quantity of sample passing at this time through the auger. The relative deflections depending on quantity will be explained.
Claim 7 remains. (8.)
Claim 7 is the apparatus for Fluorescence brightness measurement by injection of dissolvent **55**.
Claim 7.1 remains. (9.)
Claim 7.1 is the process of constantly injecting small dose of dissolvent in to the cuttings flow.
Claim 7.2 is cancelled.
Claim 7.2 is a process of Fluorescence brightness measurement with apparatus.

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Claim 7.3 remains. (10.)
Claim 7.3 is sensor **54**, which measures the amplitude and frequency of light emission produced.
Claim 7.4 is cancelled.
Claim 7.4 is the measurement reflecting the hydrocarbon type, presence and saturation, properties of substrata formations through measuring the drilling cuttings flow.
Claim 7.5 is cancelled.
Claim 7.5 is the time-amplitude-frequency dependency arrived from measurements.

Total claims – **10**.

Regards,

Konstandinos Zamfes